

### REMARKS

Claims 1-26, 29-31, 50, 51, 54-58 and 60-64 are pending. Claims 10, 23, 58, 60 and 61 are cancelled herein without prejudice. Claims 1-4, 7, 11-22, 25, 26, 50, 51 and 54-57 are allowed. Claims 5, 6, 8, 24, 29 and 31 are amended herein. Claim 65 is added. The amendments add no new matter.

#### Claim Objections:

Claims 10 and 23 are objected to under 35 U.S.C. §1.75 as being substantial duplicates of claims 3 and 4, respectively. The Office Action states that, “in view of the present amendments, claims 3 and 10 appear to be identical in scope,” and “likewise, claims 4 and 23 appear to be identical in scope.” Applicant submits that the cancellation herein of claims 10 and 23 renders this objection moot.

#### Rejections under 35 U.S.C. §112, Second Paragraph:

Claims 5, 6, 8, 9, 29-31 and 62-64 are rejected as indefinite under 35 U.S.C. §112, second paragraph.

The Office Action states that claims 5-6 recite limitations with respect to the type of candidate sequence found. The Office Action states that these claims “are confusing as claim 4 does not specify that the database of microbial sequences used for comparison be from a particular type of microbial organism (i.e., comparing said candidate sequence to a database of mutualistic microbial organism, parasitic microbial organism). The same is said to be true of claims 29-31.

Applicant submits that the amendment herein of claims 5 and 6 is sufficient to overcome this rejection. Specifically, claim 5 has been amended to recite a “database of microbial sequences comprises sequences belonging to a symbiotic, mutualistic, commensal, parasitic or pathogenic microbial organism,” and claim 6 has been amended to recite “a database of microbial sequences, wherein said database comprises sequences from a pathogenic organism.” Applicant notes the addition of new claim 65, which recites the identification of the candidate

microbial sequence as belonging to a symbiotic, mutualistic, commensal, parasitic or pathogenic microbial organism.

With regard to claims 29-31, Applicant submits that the limitations requiring that the identified pathogen is an infectious disease organism (claim 29), is associated with a pathogenic condition selected from the group consisting of an inflammatory disease, an autoimmune disease, and a cell proliferative disease (claim 30) or that the associated disease is selected from the group consisting of sarcoidosis, inflammatory bowel disease, atherosclerosis, multiple sclerosis, rheumatoid arthritis, type I diabetes mellitus, lupus erythematosus, Hodgkin's disease, and bronchioalveolar carcinoma (claim 31) are clear in view of the recitation in claim 6 that the database "comprises sequences from a pathogenic organism." Applicants have, however, amended the recitation of "pathogen" in claims 29 and 30 to refer instead to "pathogenic organism" to make the terminology in these dependent claims more closely reflect the terminology of parent claim 6.

The Office Action states that claim 8 recites that the microbe is an intracellular pathogen, but that "this is confusing because it requires foreknowledge of the microbe before executing the method." Applicant respectfully disagrees.

Applicant submits that the limitation that the "microbe in a host organism is an intracellular pathogen" simply further limits the scope of the claim. Applicant is aware of no requirement that specific elements of a dependent claim be recited in the independent or preceding parent claim. Rather, it is simply necessary that the dependent claim includes every limitation of the parent claim and further limits the scope of the independent or parent claim (M.P.E.P. §608.01(n)). Nonetheless, in the interest of advancing prosecution, Applicant has amended claim 8 herein to recite "The method of claims 1, 2, or 3 wherein said host organism in step (a) has a pathogenic condition and wherein said method indicates the potential presence of an intracellular pathogen microbe." Applicant submits that the identification of the potential presence of an intracellular pathogen requires no foreknowledge and that the claim is clear as amended. Support for the amendment is found, for example, at page 11, lines 20-21 and in claim 8 as originally filed. Applicant further submits that the amendment to claim 8 is sufficient to address any similar problem with dependent claims 62-64.

The Office Action states that claim 24 is confusing as it does not make clear if the database of microbial sequences includes viral sequences. Applicants have amended claim 24 to recite "wherein said database of microbial sequences includes viral sequences." In view of the amendment, Applicant submits that it is clear that the database of microbial sequences includes viral sequences.

In view of the above, Applicants submit that claims 5, 6, 8, 9, 24, 29-31 and 62-64 are definite and respectfully request withdrawal of the §112, second paragraph rejections.

Rejections under 35 U.S.C. §102(e):

Claims 58 and 60-61 are rejected under 35 U.S.C. §102(e) as lacking novelty over Lincoln et al., U.S. Patent No. 6,303,297.

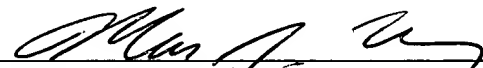
Applicant submits that the rejection is rendered moot by the cancellation of claims 58, 60 and 61 herein without prejudice.

In view of the above, Applicant submits that all issues raised in the Office Action have been addressed herein. Applicant respectfully requests reconsideration of the claims.

Respectfully submitted,

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3/29/05



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